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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/525,125	02/18/2005	Donald Malcolm Snyder	9526-49	5326

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EXAMINER

EWALD, MARIA VERONICA

ART UNIT	PAPER NUMBER
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1722

DATE MAILED: 01/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/525,125	SNYDER ET AL.	
	Examiner	Art Unit	
	Maria Veronica D. Ewald	1722	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 11 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5 is/are allowed.
- 6) ☒ Claim(s) 1 - 4, 6-11 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>2/18/05</u> | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Allowable Subject Matter

13. Claim 5 is allowed. The following is a statement of reasons for the indication of allowable subject matter: Prior art fails to show a prill bucket mounted specifically on a drive shaft, such that the mounting includes an end portion of the drive shaft with a reduced diameter portion with a disc and being positioned with elastically deformable material or springs.

Claim Rejections - 35 USC § 102

14. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 – 3 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Bedetti (U.S. 6,062,487). Bedetti teaches an apparatus for the granulation of a substance provided in fluid, semi-fluid and similar state comprising a prilling tower (column 1, lines 30 – 32; column 10, lines 28 – 31); a prilling bucket (item 5 – figure 2; column 5, lines 19 – 21) revolvingly supported inside and at the top of said tower, a driving shaft, revolvingly supported at the top of said tower and extending in the axial direction thereof, said shaft having at least one end portion associated with said prilling bucket to command it into rotation (item 15 – figure 2; column 8, lines 50 – 52) and a

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device to apply vibration to said bucket characterized in that the bucket is mounted in a sliding way on said driving shaft in said axial direction and it is integral with it in rotation and in that said device is directly associated with said bucket to make it vibrate in said axial direction, said device is mounted on said bucket, inside the prilling tower (column 7, lines 30 – 35; column 8, lines 35 – 40, 50 – 52; column 9, lines 40 – 45).

Furthermore, the driving shaft extends coaxially through said prilling bucket (figure 2) and has an end portion coupled with said bucket, in a sliding manner in the aforementioned axial direction and integral in rotation (column 8, lines 35 – 40, 50 – 52) and said bucket is coaxially equipped at the bottom with a base block, crossed by an axial hole, engaged in a sliding way by said end portion of said shaft (figure 2).

Claims 1 – 3, 4 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Litvinov, et al. (SU 1777944). Litvinov, et al. teach an apparatus for the granulation of a substance provided in fluid, semi-fluid and similar state comprising a prilling tower (abstract); a prilling bucket (items 3, 4 – figure 1) revolvingly supported inside and at the top of said tower, a driving shaft, revolvingly supported at the top of said tower and extending in the axial direction thereof, said shaft having at least one end portion associated with said prilling bucket to command it into rotation (abstract; item 2 – figure 1) and a device to apply vibration to said bucket characterized in that the bucket is mounted in a sliding way on said driving shaft in said axial direction and it is integral with it in rotation and in that said device is directly associated with said bucket to make it vibrate in said axial direction, said device is mounted on said bucket, inside the prilling

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tower (abstract; item 17 – figure 2). Furthermore, the driving shaft extends coaxially through said prilling bucket (item 2 – figure 1) and has an end portion coupled with said bucket, in a sliding manner in the aforementioned axial direction and integral in rotation (abstract) and said bucket is coaxially equipped at the bottom with a base block, crossed by an axial hole, engaged in a sliding way by said end portion of said shaft (figure 1). In addition, the bucket is mounted on said driving shaft with a coupling substantially using grooved profiles (abstract, item 7 – figure 1).

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bedetti or Litvinov in view of Pujari (U.S. 4,556,090). Bedetti and Litvinov teach the characteristics previously described but do not teach that the vibration device is mounted in a carter on said base block. Litvinov, further teaches, however, that the vibration device is pneumatically-actuated (abstract; item 17 – figure 2).

Pujari teaches an improved powder feed apparatus for a powder-forming mold, such that the powdered feed apparatus is vibrated to deter the material from agglomerating and restricting flow of the material into the mold cavity (column 1, lines 19 – 23). Pujari further teaches that there is a vibrator (item 44 – figure 1) attached

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below the bottom half of the mold (item 12 – figure 1). This allows the powdered material to flow through the exit aperture of the feed cup into the bottom of the mold without clogging at the aperture exit or otherwise, conglomerating at the exit (column 5, lines 1 – 4). This reads on the Applicant's claim that the device is positioned inside a carter, fixed to said base block, below the bucket.

It would have been obvious at the time of the Applicant's invention to mount the vibration means within a carter allowing it to be encased in a housing and mounting the vibration means below the bucket for the purpose of efficiently vibrating the bucket such that the droplets fall vertically and through the apertures in the bucket without conglomerating and therefore, clogging the exit apertures of the bucket as taught by Pujari.

Claims 9 – 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bedetti or Litvinov in view of Hiroshima, et al. (U.S. 4,495,086). Bedetti and Litvinov teach the characteristics previously described but do not teach the specifics of the compressed air supply to the vibration device.

In a method to produce uniform emulsified materials, which are dispersed through an atomizing head, Hiroshima, et al. teach an air motor to drive the rotational shaft (item 15 – figure 1; column 4, lines 8 – 10). There is a compressed air source (item 19 – figure 1), which extends from above the emulsifying vessel and into the air motor (column 4, lines 8 – 20). The duct or air line is partially extended into the shaft and the block into which the air motor is housed. This reads on the Applicant's claims that there is a duct for supplying compressed air to said device, wherein the duct

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extends from above said bucket to said base block and is open in said carter; wherein said duct is partially axially extended in said driving shaft and partially in said base block and is in fluid communication with a pressurized fluid source through an air connecting box.

It would have been obvious at the time of the Applicant's invention to modify the prilling apparatus of Bedetti or Litvinov with the compressed air configuration of Hiroshima, et al. for the purpose of supplying air to the vibration means from above the bucket, allowing an air source line to be situated outside the prill tower.

Conclusion


16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Maria Veronica D. Ewald whose telephone number is 571-272-8519. The examiner can normally be reached on M-F, 8 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on 571-272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MVE



ROBERT DAVIS
PRIMARY EXAMINER
GROUP 1300-122
1/9/06